JPRS 81588

19 August 1982

Worldwide Report

EPIDEMIOLOGY

No. 291

19981130 112

FBIS

FOREIGN BROADCAST INFORMATION SERVICE

Reproduced From Best Available Copy DITO QUALITY ENEPEUTED

343 Ad3 JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in <u>Government Reports Announcements</u> issued semi-monthly by the National Technical <u>Information Service</u>, and are listed in the <u>Monthly Catalog of U.S. Government Publications</u> issued by the <u>Superintendent of Documents</u>, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

WORLDWIDE REPORT EPIDEMIOLOGY

No. 291

CONTENTS

WORLDWIDE AFFAIRS					
Denmark	c: Study Confirms Foot-and-Mouth Disease From GDR (Ojvind Kyro; BERLINGSKE TIDENDE, 16 Jul 82)	1			
	INTERNATIONAL AFFAIRS				
Briefs	Jordan-Israel Mosquito Control	4			
	HUMAN DISEASES				
AUS TRALIA					
Golden	Staph Threat Mounts; Strains Found To Differ (THE AGE, 12 Jun 82, THE COURIER-MAIL, 12 Jun 82)	5			
	Concern in Victoria Hospital Unit Closure				
BANGLADESH					
Briefs	Diphtheria in Barisal	6			
CZECHOSLOVAKIA					
Briefs	Rubella Prevention Campaign	7			

GHANA

	An ti-Cl	holera Campaign Launched Against Spread of Disease (DAILY GRAPHIC, 20 Jul 82)	8
GRENAD	A		
	Mass P	ublic Campaign Mounted Against Gastroenteritis (Keith Jeremiah; FREE WEST INDIAN, 12 May 82)	9
GUATEM	ALA		
	Briefs	Dengue Outbreak Denied	11
GUYANA			
	Briefs	Garbage Disposal Problem Increase in Chicken Pox	12 12
INDIA			
	Briefs	Unnamed Disease Spreads Mystery Disease Identified Raipur Cholera Deaths Spread of Malaria	13 13 13
IRAN			
	New Pha	armaceutical System Based on 'Generic Drugs' (IRAN PRESS DIGEST, 20 Jul 82)	15
JAMAI C	A		
	Anti-Po	olio Drive in Phase 2; Total of 58 Cases Reported (THE DAILY GLEANER, 29, 30 Jun 82)	19
		Emphasis on Children Future Plans	
LIBYA			
	Briefs	New Hospital for Chadamis	21
MALAYS	IA		
	Briefs	Dengue Cases in Kelantan	22

MEXICO

1	Briefs I	Dengue Outbreak	23
PEOPLE!		LIC OF CHINA	
:	Radioact (tive Elements Suspected in Unidentified Disease (Zheng Yuanchang; HUANJING, No 5, 1982)	24
PHILIPP	INES		
	Anti Mea (asles Drive Set for Cagayan Valley (Gabby Visaya; BULLETIN TODAY, 27 Jul 82)	26
1	Briefs P	neumonia Rising	27
SOUTH A	FRICA		
Ī	Briefs F	Polio Death	28
		ANIMAL DISEASES	
KAMP UCH	EA		
;	Briefs V	Vaccination of Animals	29
		PLANT DISEASES AND INSECT PESTS	
E CUADOR			
	Briefs]	Locust Damage	30
FINLAND			
	Fungus l	Disease Spreading Among Pine, Juniper Forests (Leo Lipsonen; HELSINGIN SANOMAT, 10 Jul 82)	31
NEW ZEA	LAND		
	Spotted	Alfalfa Aphid Country's Latest Insect Pest (THE NEW ZEALAND HERALD, 9 Jul 82)	34
ZAMBIA			
	Tan zania	an Grain Imports Banned Because of Grain Borer Threat (TIMES OF ZAMBIA, 17 Jul 82)	35

DENMARK: STUDY CONFIRMS FOOT-AND-MOUTH DISEASE FROM GDR

Copenhagen BERLINGSKE TIDENDE in Danish 16 Jul 82 p 1,7

[Article by Ojvind Kyro: "Investigation Proves Foot-and-Mouth Disease Came From East Germany"]

[Text] A scientific investigation proves that the foot and mouth disease, which last year infested Denmark, came from East Germany. Because of the unwillingness of the East German authorities to report the extent of the foot and mouth disease in the GDR, the EC commission has implemented a trade blockade. A stop has been placed on the export of meat from the GDR to the EC, amounting to 500 million kroner.

At 5:36 pm last Tuesday a telex message appeared on the teletype in the Danish virus laboratory on Lindholm. In 12 lines the FAO international virus laboratory at Pirbright in England reported the first results of an investigation of two virus samples from foot and mouth disease infested areas, one from Denmark and one from the GDR.

"The investigation clearly shows that the foot and mouth disease came from the GDR," said virus scientist Professor Ebba Lund of the Agricultural College, "and it confirms the conviction which we have long held."

A couple of minutes after the message was sent to Lindholm, Pirbright sent the same telex to Professor Helmut Schwedler in East Berlin. He is head of the GDR veterinary authorities and during recent months, on behalf of his government, he scolded Danish politicians and the Danish press for "smearing the GDR with stupid theories."

On Wednesday afternoon WEEKENDAVISEN asked Professor Schwedler for a comment on the investigation. He answered that he had not received the message, and therefore would not comment. "It is surprising that he has not received the message, because there were no transmission problems," said Dr Mowat at Pirbright.

Comparison of the two virus samples took place after a monthlong tug-of-war between Berlin and Copenhagen to get the East Germans to deliver a sample to Pirbright. This despite Professor Schwedler saying in the middle of June to WEEKENDAVISEN that "Denmark has received all the information that they want-without discussion." WEEKENDAVISEN received this comment after 4 weeks of efforts to talk to East German authorities.

The Meteorological Institute has calculated that the weather conditions were "perfect for transportation of bacteria over long distances on 7 and 8 March." The incubation period for foot and mouth disease is about 8 days, and the first animals became sick on Fyn on 15 March.

The unwillingness of the East German authorities to be open has given the GDR an economic setback of considerable dimensions. The EC commission has implemented a blockade on the import of meat from the GDR, which is the main exporter of swine meat to the EC. "Last year the GDR sold swine meat amounting to 500 million kroner to the EC," said Frits Qvist, office manager for the EC marketing division.

"The export from East Germany was stopped at the end of March, after the outbreak of foot and mouth disease in the GDR," said Hans Jorgen Bendixen, chief of the EC veterinary division, "because we did not receive an answer to our questions about the timing and the extent of the disease and what controls were being applied. For the GDR, the EC is a nonexistent institution, and therefore they did not answer us. When we get a satisfactory reply to our questions we will open the door for import again," said Hans Jorgen Bendixen.

Last Monday the sanctions policy was taken up for renewed discussion in the EC at the request of West Germany, which will eventually function as intermediary between the "nonexistent EC" and the GDR to get the situation cleared up. But at the meeting the continuation of the blockade was approved, according to veterinary inspector K. B. Mortensen.

"The GDR would rather take an economic loss to hold the flag high," said a highly placed source in the EC, "the East German government is very loyal to Moscow."

The USSR and the GDR are the only East European countries which totally ignore the EC. The other East bloc states have good relations with the EC, which go through their ambassadors in Brussels.

Illegal Liver Paste

Foot and mouth disease on Fyn and Zealand have gone up and down on the normal export pattern. Sweden has increased its meat export to Japan by 60 percent, and that creates Danish concern that the Swedes will take over the profitable Japanese market. Therefore the Swedes are being asked to lift the 4-month-old prohibition against import of Danish meat. Even though the foot and

mouth disease is finished, Sweden is maintaining such drastic restrictions that a Dane was fined 4,500 kronor for bringing over a little liver paste, some meat drippings and a couple of eggs to Sweden.

To get the Japanese to lift their import restrictions, Minister of Agriculture Bjorn Westh has sent a letter to his Nordic colleagues asking them to lift their import restrictions.

"The Nordic countries should know conditions in Denmark so well that they can feel secure with the situation," said O. W. Friis, division chief in the Ministry of Agriculture. "We have just received the results of blood tests which show that neither our domestac animals nor deer are contagious."

At the same time as Bjorn Westh went into action by sending the letter, Poul Dalsager, the EC agricultural commissioner tried to put pressure on the Swedish trade minister. But at the meeting last Tuesday, Minister of Trade Bjorn Molin rejected the issue and called it "ridiculous" to accuse Sweden of placing an obstacle in the way of Danish meat exports.

Veterinary councillor Bengt Nordblom of the Swedish "infectious disease prevention unit" abruptly dismissed poorly concealed Danish suggestions that Sweden is conducting trade policy with the help of veterinary arguments. "We are deciding only with reference to health," he said, "We are not dealing any differently with Denmark than any other country in a similar situation. We must be careful, because we do not vaccinate against foot and mouth disease, and the infection can survive for 6 months, even in deep frozen meat products."

Dumping Prices

In export prices alone the foot and mouth disease has cost Danish agriculture 300-350 million kroner. At the time of the outbreak in March the exporters reacted feverishly and sold Danish swine meat at dumping prices on the English and West German markets. West German agricultural organizations protested, but prices soon found a normal level, because the amounts which the DDR delivered fell off as a result of the EC blockade.

Furthermore, Finland and Sweden are not in the EC, having taken over the Danish export to Japan. But even if the sales possibilities in the EC are good, it is much better business to export to the United States and Japan. The prices there are about 10 percent higher.

"We do not know how long it will be before Japan and the United States remove their restrictions," said Niels Jorgensen of ESS-Food, "but the last time there was foot and mouth disease in England it took 10 months before the United States again purchased English meat."

9287

JORDAN-ISRAEL MOSQUITO CONTROL--Israel and Jordan yesterday cooperated in the town of Elat in the war against mosquitoes. Beginning in the early morning, teams from the Elat Municipality sprayed all the orchards near Kubbutz Elat while the Jordanians sprayed all the orchards in their area. Elat Municipality sources reported that recently the blight of mosquitoes had increased on both sides of the border and that after discussions between the two countries it was decided to act in concert. This correspondent notes that two tourists recently contracted malaria because of bites by anopheles mosquitoes. The two tourists were hospitalized in Jerusalem. A check by the Health Ministry showed that these mosquitoes' hatching grounds are in 'Aqaba. [Text] [TAO41210 Tel Aviv DAVAR in Hebrew 4 Aug 82 p 10]

GOLDEN STAPH THREAT MOUNTS; STRAINS FOUND TO DIFFER

Concern in Victoria

Melbourne THE AGE in English 12 Jun 82 p 3

[Text]

PERTH. — Studies in Western Australia on methicillin-resistant golden staphylococci have shown that the Melbourne strains have different characteristics to the strains isolated elsewhere.

Golden staph is causing serious boncern in Victoria where 100 people have died of the disease in a year.

A microbiologist from the WA institute of Technology, Dr Warren Grubb, says golden staph has now spread to all big hospitals in Melbourne, and to Hobart, Sydney, Adelaide and Brisbane.

Hospital Unit Closure

Brisbane THE COURIER-MAIL in English 12 Jun 82 p 1

[Text]

A "Golden Staphlococcus" infection at the Royal Brisbane Hospital has forced the closure of the hospital's intensive care unit.

The Health Minister, Mr Austin, ordered a full report from Royal Brisbane's medical superintendent, Dr Brian Campbell, following the detection of the multi-resistant Staphlococci aureus in three patients.

The intensive care unit was cleared on Thursday and scrubbed to clear the infection.

Golden Staphs are members of the common staphlococci bacteria group, most of which can normally be carried by humans without ill-effect.

The term "golden" is applied to a particular group of the bacteria which adapt to sterile environments and show immunity to antibiotics.

The original Golden Staph isolated in hospitals during the 1950s caused many deaths and still appears, but was not the staph found this week. The term has since been used for any staph with resistance to antibiotics.

Golden Staphs can also be carried

by a healthy human without ill-effect, but can lead to death in weak patients as a related cause.

Golden Staph has been found previously at Royal Brisbane but it has not been the sole causeof deaths here.

Patients are most commonly infected after surgery, after having suffered severe burns or during a severe illness. The infection can cause further incapacity in a sick person, and prevents healing of skin wounds.

The Health Department is preparing a series of recommendations on the Golden Staph group for publication.

DIPHTHERIA IN BARISAL—BARISAL, Jul 7—Diptheria has broken out in the district in epidemic form and about fifty children died of diptheria so far. Hundreds of children are attending in Medical College Hospital, TB Hospital and Police Hospital to have DPT injection. Hospital authority foils to supply the required injection. On the other hand injection 'Oraviclon' is out stock which is most necessary for the disease. As a result children are attacking levishly. About three hundred children admitted in the hospital during last few months and at present about fifty patients are under treatment in the hospital. [Text] [Dacca THE BANGLADESH TIMES in English 8 Jul 82 p 2]

RUBELLA PREVENTION CAMPAIGN—All Czechoslovak female students attending the sixth grade of the basic 9-year schools [age 12] will be vaccinated against rubella during the 1982-1983 school year. About 70-90 percent of women are immune against the disease, but 10-30 percent can contract it. Although preventive abortions are performed yearly on several hundred of women who had rubella, several physically and mentally disabled children have been born to women who had not detected having rubella during their childhood. [Prague LIDOVA DEMOKRACIE in Czech 30 Jul 82 p 3]

ANTI-CHOLERA CAMPAIGN LAUNCHED AGAINST SPREAD OF DISEASE

Accra DAILY GRAPHIC in English 20 Jul 82 p 5

[Text]

AN intensive health education campaign to eradicate cholera in the Winneba district began at Winneba on Sunday.

The senior medical officer of health in charge of the Government Hospital at Winneba, Dr A. Annani, who launched the campaign, appealed to the public to co-operate with the visiting medical team in controlling the disease.

He stressed the need for personal hygiene and disclosed that three out of the 26 cases reported last week died and the rest were on admission.

Dr Annani urged hawkers to protect their food from flies to avoid contamina-

tion.

He said with the help of the People's Army and some philanthropists the hospital authorities had been able to open two camps for cholera patients.

The townsmen have attributed the spread of the disease to lack of good drinking water following the breakdown of a treatment plant of the Water and Sewerage Corporation.

It is believed the plant has outlived its usefulness and that there could be no good drinking water in Winneba unless a new one is provided.

Some people have been drinking from old wells and nearby streams.

The rainy season has proved a relief for the people but the situation would be different if the rains stop.

Reliable sources said the people have contributed nearly C30,000 to buy a plant to replace the faulty one.

MASS PUBLIC CAMPAIGN MOUNTED AGAINST GASTROENTERITIS

St Georges FREE WEST INDIAN in English 12 May 82 p 1

[Article by Keith Jeremiah]

[Text] SUNDAY'S massive anti-gastro-enteritis clean-up campaign, dubbed "the health manoeuvre" was "fairly successful", with people in the various communities coming out in handsome numbers to clean drains, trim overhangings and rid their surroundings of garbage, says an official of the Ministry of Health.

And, the Ministry is now planning a "bigger health manoeuvre" for this Sunday, and is calling on the people to come out in greater numbers. Officials of the Ministry will be briefing leaders of mass organisations and Parish Coordinating Bodies (PCB) on the extent and form it will take, in a meeting on Friday.

For such camapigns to be successful and effective there must be mass participation, the Ministry stressed.

Members of the People's Revolutionary Militia and the Police Service joined the people last Sunday and "did a good job in the St. George's area". Plenty work was done in the village of River Road, one of the areas worst affected by the disease.

According to the official, work took place in all parishes, except St. David's, and environmental workers also came out and helped.

Most of the work is said to have involved the cleaning of clogged drains and 'ditches, the burning of garbage and cutlassing grass on the roadsides.

The clean-up campaign was spearheaded by the Ministry, in collaboration with parish co-ordinating bodies, mass organisations and village groups.

At the same time, the Ministry is pushing ahead with a publicity programme, informing the population about ways in which they can prevent the spread of gastro-enteritis.

The Ministry is also planning to push its gastro eduction programme among organisations, such as the National Youth Organisation (NYO) and the National

Women's Organisation (NWO), with a view to having health measures regularly discussed in group meetings.

The education programme is likely to be extended to primary and junior secondary schools throughout the country.

Between January and April, the Ministry disclosed, the disease has caused the deaths of four persons and 500 cases have been reported.

In a press conference last week, Deputy Health Minister Chris Deriggs, Permanent Secretary Dorcas Braveboy and other senior health personnel expressed concern about the bad disposal of garbage and other insanitary habits, which they a said, are a source of the present outbreak.

They appealed to affected persons to report to a doctor or medical station immediately before the disease reaches the stage of dehydration, the loss of body fluids.

Necessary salts for the restoration of body fluids are now available free in the hospital and health clinics throughout the island.

The Ministry has stressed the importance of mass participation in the cleanup campaigns, and is again calling on people to turn out in their communities on Sunday for "a bigger health manoeuvre.

DENGUE OUTBREAK DENIED--Health Minister Adolfo Castaneda Felice has denied reports from Mexico about an alleged outbreak of dengue fever in Guatemala. Meanwhile, Radio Belize has reported hundreds of dengue cases there. In an official communique, the Belizean authorities have confirmed the existence of the cases, indicating that the infection came from Honduras. [Guatemala City PRENSA LIBRE in Spanish 11 Jul 82 p 4 PA]

GARBAGE DISPOSAL PROBLEM—RESIDENTS of Greater Georgetown are throwing away 80 000 tons of rubbish every day but the Municipal incinerator cannot cope with this huge amount of waste. A City Councillor, who wished to remain unnamed, told the Chronicle recently that the incinerator is old and many of its parts are worn beyond repair. According to the councillor, the Municipality reviewed the problem of the incinerator four months ago and discussed various solutions. One of these solutions seems to be the controlled dumping which is taking place in the South Ruimveldt area. However, this dumping has led to complaints from residents there about a sudden increase of flies and mosquitoes which they feel pose a health hazard. Principal Medical Officer Dr. London contacted the Cleansing Department about the complaints. The doctor in charge of Epidemiology said Cleansing Officer Sydney Thomas has told him there was little the Council could do about the situation now because they were operating under financial constraints. [Georgetown GUYANA CHRONICLE in English 30 Jun 82 p 3]

INCREASE IN CHICKEN POX--CHICKEN POX, scabies and gastro enteritis are some of the main diseases which have been engaging the attention of the Linden Town Council in recent times. According to Public Health Co-ordinator, Venus Smartt, chicken pox surfaced in late 1980 when some 20 cases were reported. By the end of last year, it had affected 160 persons. Reports for 1982 are not immediately available but from all indications, the virus was still very much in evidence, she said. Scabies, a skin condition said to be very evident in the Linden area, has infected a large number of children and to date over 320 cases have been reported since late 1980. In the case of gastro enteritis. there has been a decline which according to Cde. Smartt, may be attributed to the improved potable water supply system in the town. Meanwhile, an estimated 90 per cent of the region's children have been immunised against polio. Many of those vaccinated recently as a result of a stepped-up immunisation campaign by the Health Ministry, hailed from riverain communities such as Muritaro, Bootaba, Good Hope and Maria Elizabeth. [Georgetown GUYANA CHRONICLE in English 30 Jun 82 pp 6-7]

UNNAMED DISEASE SPREADS—Though malaria is said to have been "contained" in three sub-divisions of Jalpaiguri district where the outbreak was acute, the disease is spreading in the neighbouring sub-divisions. Cases have been reported from Jalpaiguri and Alipurduar towns. Outbreak of malaria has been reported from 110 villages in Jalpaiguri. According to the latest reports received by the Health Department 2,625 cases of malaria were recorded of which 430 were "malignant." The total number of deaths recorded was 114. Mr Nani Bhattacharya, Health Minister, said in Calcutta on Monday that while the spread of the disease at Dupguri, Madarihat and Falakata had been somewhat checked, it was spreading in Mal, Alipurduar I, Kalchini and Manbazar sub-divisions. In the last few days over 280 cases were detected at Alipurduar, 105 in Kalchini and 123 in Manbazar. [Text] [Calcutta THE STATESMAN in English 21 Jul 82 p 3]

MYSTERY DISEASE IDENTIFIED—JALPAIGURI July 18—The so-called mysterious disease raging in Jalpaiguri district since the third week of April is according to Dr B. N. Tripathy, Health Officer of Jalpaiguri, malaria in an epidemic form. It is being fought. He said that till now 2,625 positive malaria cases had been detected and that out of these, 2,195 were ordinary ones and 430 malignant. The disease has spread to all 13 blocks of the district, but it is virulent in five blocks. Dhupguri, Madarihat Kumargramduar, Falakata and Rajganj. One hundred and fourteen people have died in these five blocks. The West Bengal Halth Minister, Mr Nani Bhattacharya, during his visit to Jalpaiguri last week, formed two committees, the district coordination committee and the block-level coordination committee, to formulate measures to fight malaria. The former will meet every month and the latter every Saturday to review the position [Text] [Calcutta THE STATESMAN in English 19 Jul 82 p 7]

RAIPUR CHOLERA DEATHS--Raipur, July 24 (PTI)--Eight persons have died of cholera in Raipur district since May this year according to official sources here today. Eighty-two others were affected by the epidemic, 57 of them from urban areas, the sources said. The Raipur district collector has declared the entire district as cholera affected area for a period of six months. [Text] [New Delhi PATRIOT in English 25 Jul 82 p 4]

SPREAD OF MAIARIA--Durgapur, July 20--There are indications that the disease which has claimed more than 100 lives in the districts of north Bengal has spread to Durgapur. During the past four days two children died of the disease at Viswakarmanagar Hospital here. One of them had been to Siliguri a few days before but the other was all along in Durgabur. [Text] [Calcutta THE STATESMAN in English 20 Jul 82 p 16]

NEW PHARMACEUTICAL SYSTEM BASED ON 'GENERIC DRUGS'

Tehran IRAN PRESS DIGEST in English 20 Jul 82 pp 5-8

[Text] The object of our country's new pharmaceutical system is "The Generic Plan" by which all drugs of identical formula will be produced under one name and thus reducing 4000 items of drugs to about 1000 generic drugs."

The insufficiencies of drugs during the transition period from a commercial and publicity system to a new and scientific pharmaceutical system are about to be eliminated these days, the insufficiencies which were arising from the change of a system imposed by plundering multinational companies through domination over Iranian pharmaceutical market offering identical drugs under different commercial names of no quality. In order to put an end to such monopolistic business, the Ministry of Commerce has introduced the Generic Plan during the last year and trying to alleviate the insufficiencies it has increased the imports of generic drugs from 270 items in 1360 to 465 items during 1361 at a time when about 97% of drugs imports are handled by the government. Meantime to totally remove the shortage of essential drugs, the government has authorized private import companies to import drugs under their own brands which is forming several percent of imported drugs. However the pharmaceutical system is fully monopolized by the government and all drugs of public and private sectors are distributed through one of the six state distribution networks. The generic plan has been the foundation of country's new pharmaceutical system since some time causing basic changes towards offering the best type of drugs and elimination of commercial consumption system in imports and local productions. The unreasonable imports of different drugs of similar formula during the past regime had provided a thriving market for plundering multinational drug companies when such companies were raising the false consumption level of drugs among people through publicity advertising over their different commercial brands, filling their coffers with the wealth of our deprived people. However the object of the new pharmaceutical system of the generic plan is to bring all drugs of single formula under one name and so 4000 items of drugs will be reduced down to about 1000 generic drugs.

In Generic Plan, drugs of several identical types are packed in a single specific type and offered at a fixed price containing effective amount of materials while a single type of drug used to be marketed during the old commercial pharmaceutical system even under seventy different brands and the multinationals were imposing such pharmaceutical formula the major characteristic of which was

difference in price not any difference in quality whereas the Generic Plan has eliminated the unnecessary compositions offering the drugs at reasonable prices.

Production and Imports of Generic drugs:

The officials in charge have announced at the moment that 97 percent of pharmaceutical imports are handled by the government, 3 to 5 percent is handled by the private sector and the local production has increased from 30% to 60 percent of total drugs requirements.

Dr Nik-Nejad Deputy Minister of Health for Pharmaceutical Affairs, speaking about the amount of imports, generic local productions, and production stages of generic drugs said:

"The State Pharmaceutical Company has launched its operations in connection with drugs imports under generic names since the second half of 1360 and so long as the company is unable to supply the entire hundred percent of country's drug imports, private companies shall be authorized to import some of the items of essential drugs listed as generic drugs and needed by the patients, under their own nongeneric names. The amount of such imports will of course not exceed over 10 percent. The State Pharmaceutical Company is scheduled to offer such drugs through news paper announcements. About 50 items were announced already during the first half of June and the rest are either in the customs or on the way which will be marketed immediately upon clearance from customs, and shall be distributed through Alborz Company which is one of the State Pharmaceutical Distribution companies. Needless to mention that such items are other than cancer drugs imported by the State Pharmaceutical Company and offered to Cancer Prevention Organization. We hope to achieve our goal in this plan gradually so far as the country interests permit and announce the rest of drugs shortly through papers."

Speaking about the generic drugs production stages and the local production amount of generic drugs he said: "In order to import drugs of generic names or to include it in the local production plan a list of the required items are supplied to local pharmaceutical manufacturers since the past 18 months and such manufacturers have planned the formulation, supply of raw materials, production, control, and packing and about 80 percent of such drugs are already produced up to-date and ready to receive the license, price and sale to medical institutes and drug stores, and we hope to complete the other 20 percent of such generic drugs through the cooperation of those involved. However, if a locally produced drug failed to cover the medical requirements of the country or where there is no chance of production at the moment it will be imported based upon the statistics of Statistics and Planning Department of Ministry of Health to be given to the State Pharmaceutical Company."

"Our aim is that medicines manufactured and or imported by different sources under a single name be offered in a single specific packing, at a single unit price and a therapeuctic dose. For instance, we have tried to offer tables in packages of 100 each, suspensions in bottles of 60, 120, or 140 cc capacity, and drops in bottles of 15 ml. Since there is some difference between the new

policy and old packing we have asked the physicians to indicate the number of medicines in their prescriptions.

Drug Imports:

The State Pharmaceutical Co. has taken over the imports of drugs with generic names since the past eight months, and the Ministry of Health is advising the Pharmaceutical Co. of the amount of drugs to be imported and the types of generic drugs required by the country upon surveying the amount of local productions so that the required quantities can be imported. The year 61 imports statistics of the State Pharmaceutical Company proves that this figure has increased 11 times over the 57 imports. Assuming that the pharmaceutical imports of 57 was 2219 million rials, such amount will reach at 25000 million rials during 1361.

In a talk with Ali Olama-zadeh Director General of the State Pharmaceutical Company about the pharmaceutical issues and the duties of the company he said: "The duty of this company is to supply medicine and medical equipment required by all the public medical units affiliated with the Ministry of Health, Army, etc., and the second duty is to import hard-to-find drugs so that it can be offered to public through the private sector. This company has taken over the imports of drugs since the revolution and upon principle 44 of Constitution whereby the foreign trade should be taken over by the government. This company has started imports of drugs with generic names for the public and private sector since 50' in cooperation with the country's pharmaceutical industry and receiving an import planning schedule from the Department General of Pharmaceutical Services which is in charge of staff duties, while we have imported over 100 items of hard-to-find drugs during 59, and following the plan we have succeeded to order 270 items of drugs from well known and reliable foreign manufacturers during 1360, a figure which has reached 465 items of generic drugs during 61. The company is already trying to determine prices and deciding to select and purchase such products from different reliable production sources of the world.

The third duty is to supply part of the medicines required by the country. Part of the imported drugs are of course distributed by the Supply Organization of Red Crescent and Daru-Paksh Distribution Company a subsidiary of the Ministry of Health and one or two other companies affiliated with nationalized industries.

How To Solve the Shortage of Medicines

Consumption of medicine has increased by 28% during the last year compared with the preceding year, and this has occurred while the imports of the State Pharmaceutical Company during 61 has jumped by 11 times over 57 and seven times over 56. However, despite such amount of imports we are still facing pharmaceutical problems because of the physicians lack of knowledge of generic drugs and drugs the licenses of which are already cancelled during the transition period from the old commercial system to new generic system. The Ministry of Health has authorized pharmacists to replace the commercial drugs prescribed by doctors by generic drugs and the ministry is trying to inform the doctors

and pharmacists further on the new system. Surveying the shortages and problems of drugs supplies Dr Nik-Nejad the Deputy Minister of Health is asked about the question who says: "Considering the development appearing in the pharmaceutical system and the current transition period conditions, the chance of shortage in some of the drugs due to lack of full knowledge by doctors of the available medicines and elimination of drugs with commercial brands has created certain problems for patients which we hope will be solved through information and advice to be given to physicians and pharmacists when they will have the knowledge of the available drugs to prescribe it accordingly, Therefore, the doctors are currently prescribing medicines the licenses of which are already cancelled or medicines already marketed for which they are only giving the commercial names. At the present war situation, priorities are given to fighters in the front and those wounded in the war. Another question is the fact that the drugs consumption has substantially increased over the standard limits under the present conditions in such a way that the total consumption of '60' had an increase of 28% over '59, in the other hand international companies are causing a number of problems in supplying the raw materials, packing and finished products.

Speaking on the doctors and pharmacists knowledge of locally produced or imported drugs Dr Nik Nejad said that 6 pharmaceutical distribution companies will soon contact doctors and pharmacists offering them the required information. In the other hand the Ministry of Health is about to publish a research and scientific book of generic drugs in which the latest information up to 1981 will be offered to physicians and those involved in medical business.

Effective factors in medicine consumption:

The consumption of medicine has increased for certain reasons under present conditions partially caused by expansion of health and medical services of Development Crusade in rural areas. All Olama-zadeh, Director General of the State Pharmaceutical Company believes that the following factors are effective in consumption of drugs:

- 1. Health and preventive plans by which the more preventive measures of diseases are developed the lower will be consumption of drugs drop down.
- 2. There is a direct relationship between medicine consumption and expansion of medical services through the rural areas and districts.
- 3. Development of public or group insurance which has caused higher consumption of medicines.
- 4. Carrying out training programs for different medical groups in connection with planning of medical services development.
- 5. Development and growth of national pharmaceutical industries which has a reverse relationship with the amount of medicine.
- 6. The consumption of medicine will automatically drop when the generic plan has been fully implemented.

cso: 5400/5330

ANTI-POLIO DRIVE IN PHASE 2; TOTAL OF 58 CASES REPORTED

Emphasis on Children

Kingston THE DAILY GLEANER in English 29 Jun 82 p 1

[Text]

THE MINISTRY OF HEALTH is to begin the second phase of its polio immunization programme in St. James on July 5, while the first phase is continuing in the rest of the island.

The emphasis "is definitely on persons of pre-school and school ages," according to Mr. Jim Murray, Senior Public Health Officer, who has responsibility for manning the Command Centre.

Officials of the Ministry were yesterday reviewing the progress of the programme at the Ministry's Cale-

donia Avenue office.

Mr. Murray stressed that it was vital for those who had already received their vaccines to return and receive the second dose. Traditionally, there has been a lower response rate to the second dose.

At the same time, he expressed concern at the "obvious disregard" for health warnings given during the course of the polio outbreak. It was important for persons to refrain from strenuous exercise until the Ministry gives the go ahead, Mr. Murray said.

Future Plans

Kingston THE DAILY GLEANER in English 30 Jun 82 p 7

[Text] THE GOVERNMENT IS STUDYING making the vaccination of children against diseases like polio necessary for admission to public schools, the Minister of Health, the Hon. Dr. Kenneth Baugh, said yesterday.

Speaking in the sectoral debate in the House of Representatives, Dr. Baugh said that as a precautionary measure against outbreaks of diseases like polio, diptheria, whooping cough, tetanus, measles and rubella, the Government was considering making vaccinations against such diseases relevant to admission to public schools.

Dr. Baugh was giving an update on the polio outbreak and measures which are being planned to prevent further outbreaks.

Dr. Baugh said that $4\frac{1}{2}$ million doses of anti-polio vaccine have been ordered by the Government, of which 3.7 million doses have been received and 3.6 million doses already distributed.

He said 58 cases have been discovered so far of which 44 were in St. James, three in Westmoreland, one in Hanover, two in St. Ann, one each in St. Mary and Manchester, and two in Kingston and St. Andrew.

IN PARISHES OTHER THAN ST. JAMES, there was very little evidence of secondary spread, suggesting that the early immunizations were effective in preventing a spread of the disease.

In age group up to four years old there were 30 cases or 55 per cent five to nine age group, 22 per cent 10-14 age group, 5.5 per cent 15-19 age group, 7.4 per cent and over 20 age group, 2 percent.

He said 77.7 per cent of the cases were under 10 and 88.3 per cent under 15 years. The youngest case was seven weeks old and the mother of the child was a teenager who had not been vaccinated.

There was one death — a child aged two which was recorded early in the history of the outbreak and it occurred in Montego Bay. There were 19 cases which had no previous history of immunization, three had one dose previously, two had two doses previously and two previously had three doses and had been immunized.

More than 90 per cent of the susceptible age group, which is up to 15 years of age, have been immunized.

Dr. Baugh said the susceptible group were children under the age of 15 years and the Government's immunization programme would concentrate on that age group.

He said the co-operation of the public in seeing that those children get vaccinated was vital to the success of the programme.

THE NEXT STAGE of the immunization programme would commence in the first week of July.

He said outbreaks of polio and gastroenteritis highlighted the significance of paying attention to proper sanitation, cleanliness, proper garbage disposal, proper personal hygiene; and a method of controlling and preventing illness and to prevent the spread of diseases in the communities, was necessary.

He had met with the Ministers of Local Government and Public Utilities to discuss special factors relating to communities where there are over-crowded homes and insufficient sanitation and sanitary conveniences, and it was hoped that out of a programme initiating an assessment of the problems that exist in each parish, a plan will be formulated for short-term upgrading of conditions with respect to the areas affected.

cso: 5400/7569

NEW HOSPITAL FOR CHADAMIS --The new central hospital in the southwestern town of Chadames will be opening soon, the Jamahiriya news agency JANA disclosed on 28th May. The 134-bed hospital, fully equipped with the most modern equipment has operating theatres and units for maternity, gynaecology, contagious diseases, intensive care, casualty, diagnosis, cardiology, brain scanning, chronic illnesses and physio-therapy. The hospital complex includes a doctors and nurses residence and a mosque. The \$62.5 billion 1981-85 development plan calls for the construction of 29 new hospitals throughout the Jamahiriya with an increase in the number of hospital beds in the country from 14,472 in 1980 to 23,765 in 1985. The ratio of beds per thousand population is set to increase from 4.5 in 1980 to 6.0 by the middle of the decade. Total allocations for health service developments amount to LD650 million. [Text] [London JAMAHIRIYA REVIEW in English No 26, Jul 82 p 18]

DENGUE CASES IN KELANTAN--The dengue situation in Kelantan is worsening with 26 cases, including 2 deaths reported so far. The director of the state Medical and Health Services Department said the outbreak is serious and the department is still receiving new cases. The four latest cases, including that of a 9-year old girl, were detected in the past 6 days. [Kuala Lumpur Domestic Service in English 1130 GMT 26 Jul 82 BK]

DENGUE OUTBREAK--Culiacan, Mexico, 26 Jul (NOTIMEX)--Today 140 cases of dengue were detected in several low-income neighborhoods. More than 10 of these neighborhoods have already been fumigated and there are plans to do the same in at least eight others. In addition, an undetermined number of cases has been reported in other places. According to a health sector spokesman, the situation is serious but not grave because the disease is not fatal and its symptoms usually disappear after a period of about 8 days. [Mexico City NOTIMEX in Spanish 0315 GMT 27 Jul 82 FL]

RADIOACTIVE ELEMENTS SUSPECTED IN UNIDENTIFIED DISEASE

Guangzhou HUANJING [ENVIRONMENT] in Chinese No 5, 1982 pp 4-5

[Article by Zheng Yuanchang [6774 6678 2490], Chengdu Geology Institute: "Strange, Unidentified Disease"]

[Text] In western Sichuan Province stands a lofty and imposing, perenially snowcapped high mountain, Gongga Mountain famed at home and abroad. Gongga Mountain's main peak stands 7,556 meters above sea level, towering above the surrounding mountains. The people call it "king of Sichuan's mountains." On the eastern slope of the main peak in the mid reaches of the Moxi River valley lies a not very large expanse of flat land called the Gao Family Flats. Reportedly several decades ago this was a place where members of the Gao clan lived, and it had a flourishing population. Subsequently, however, because of changes in the "geomancy," people suffered misfortunes, so the villagers had no choice but to leave in a steady stream, moving to the slope below the flatland, where they rebuilt their homes. This is the site of the present Puzisan Brigade of Xinxing Commune in Huding County.

Puzisan Brigade has 18 households totaling 75 people sparsely distributed along 2,300 meters of the slope. This is the largest settlement in the Moxi River valley. Here the loose clinosol provides superior conditions for the growing of crops. The wheat, corn, and potatoes they plant grow vigorously and form the principal local food. In addition, every year brings good harvests of Chinese cabbage, cabbage, kidney beans, soybeans, radishes, and such vegetable crops. In the village, tall walnut trees grow before and behind houses, providing an abundant crop in the fall. On the slop the famed medicinal material, Gastrodia elata, grows profusely. The area is richly endowed by nature. One might say that the Moxi River valley area could be rated as having bumper crops and beautiful scenery.

However, who would have expected that in this bountiful land people would suffer severely from a puzzling disease. This disease is an extremely strange one in which a lump grows in the sufferer's belly. The place in which this lump grows is also very exact, not to the left or the right or above or below, but precisely between the pit of the stomach and the navel in all cases without exception. Once one contracts this disease, he will die a lingering death within 7 to 8 years or as few as 4 or 5 years, yet no one can identify this disease.

When this disease first begins, the lump on the belly is only as large as a soybean. It is slightly hard, smooth and hairless, and causes no pain or itching. Unless one paid close attention, he would not be aware that such a peculiar thing was growing on his belly. By the second year the lump has grown as to the size of a betel nut, and by the third year it is fully as large as a walnut. Nevertheless, the lump causes no discomfort and only a little itching. It feels springy to the touch; its outlines are clear; and it protrudes noticeably. By the fourth year the lump is the size of a hen's egg and the skin on it red and inflammed, but still there is no pain. By the fifth year the skin on the lump splits open and yellow pus flows from it steadily. Next the entire lump bursts, a protrusion existing all around a center depression like the mouth of a volcano. The opening is putrid, and numerous pupae the size of a rice grain grow out of it. At this time the sufferer is gasping with pain. He is restless all the time, listless, and he gradually grows increasingly thin. Within a short time, he dies. Since the origin of this disease and ways of treating it are presently unknown, those who contract it can only resign themselves to their fate. A year ago, a soybean size lump erupted on the belly of a strapping young lad of 28. Bearing the pain, he cut it out with a small knife, but unexpectedly it grew back after he had cut it out, and he cut it out again several times, never being able to get rid of this strange illness.

Yet another "strange thing" about this disease is that sufferers, both male and female, have all been more than 20 years old. Up to the present time there has been no case in which a person under 20 years old had this disease. According to an investigation made in 1980, the rate of incidence of this "strange disease" in Puzisan Brigade is 10 percent, and it has become like an invisible specter that is threatening the health of the local people.

Sichuan Province had has many strange disease since ancient times, and it seems that this disease is very much connected to the special local environment. Our prelimiary understanding is that there are no outstanding differences between the natural environment and living habits of commune members in this brigade and in neighboring brigades. Only the sources of their drinking Puzisan Brigade's drinking water comes from a spring in the water differ. granite rock of the Gao Family Flats and from seepage wells along the slope, while neighboring brigades get their drinking water from the river. Analysis of water samples shows no abnormal differences in the chemical composition or trace element content of water from this brigade as compared with neighboring brigades; however, water from the spring and seepage wells contain fairly high radioactive elements. Could it be possible the these radioactive elements are the main cause of this "strange illness?" Though there is some indication of this, it is still a "mystery". A causal relationship between radioactive elements and the "strange illness" awaits further exploration. Association of the historical fact of the flight from the old land by the ancestors of the people of Puzisan Brigade because of bad "geomancy" inevitably causes people to seriously study this new problem: the relationship between trace elements in the environment and people's health.

9432

ANTI MEASLES DRIVE SET FOR CAGAYAN VALLEY

Manila BULLETIN TODAY in English 27 Jul 82 p 23

[Article by Gabby Visaya]

[Text]

TUGUEGARAO, Cagayan — In a renewed effort to prevent the outbreak of measles in Cagayan Valley region, the ministry of health has launched an immunization project that will cover 30 priority areas in the region.

The regionwide measles immunization program, regional health director Dr. Manuel P. Najera said, is a component of the expanded program on immunization which falls on July to August this year.

He said this year's round will cover priority areas previously identified by the regional health office and representing 35 per cent of the eligible population of each of the province of the region.

The health officer also said that this will be expanded after six months to 70 per cent coverage in the January-February 1983 and full coverage of the re-

gion in July-August 1983.

Najera identified the priority areas as:

Cagayan: Alcala, Allacapan, Amulung, Lallo, Piat, Sanchez Mira, Solana and Tuguegarao;

Ifugao: Potia, Lamut, Lagawe and Kiangan;

Isabela: Alicia, Angngadanan, Cabagan, Cauayan, Echague, Ilagan I & II and Tumauini;

Kalinga-Apayao: Sta. Marcela, Luna, Flora and Pudtol;

Nueva Vizcaya: Bayombong, Solano and Bambang; and

Quirino: Cabarroguis and Aglipay.

Director Najera said that the target population or eligible children are from nine to 14 months old infants. Parents in the identified priority areas who have nine to 14-months-old children should report to the nearest rural health center or barangay health station. GTV

PNEUMONIA RISING--Health authorities cautioned yesterday the public against getting caught unprotected in the rain as the number of pneumonia cases hospitalized leaped from 204 to 281 last week. According to the latest disease intelligence center report, this number is more than twice the fiveyear median of 117. The DIC based its report on admissions at the San Lazaro Hospital (SLH). A big majority of the pneumonia patients admitted were from Metro Manila with only 21 cases coming from nearby cities and provinces. A considerable increase in hospital admissions for diarrhea was noted at the SLH with 237 diarrhea patients registered during the week. In the previous week 201 patients with diarrhea were hospitalized. Diarrhea, however, seemed to be under control as it has not yet surpassed the five-year median of 399. A total of 221 cases reported came from Metro Manila while 16 cases were brought to the SLH from surrounding provinces and cities. The incidence of typhoid fever, measles and H-fever declined during the same week with only 14, 58 and 11 cases reported, respectively. [Text] [Manila BULLETIN TODAY in English 30 Jul 40 p 40]

cso: 5400/5703

POLIO DEATH--ANOTHER polio death has been reported in the Northern Transvaal, bringing the total number of child deaths since the start of the current epidemic to 25. Twenty-three of the deaths have occurred in Gazankulu. The Director-General of Health, Dr Johan de Beer, said yesterday a total of 253 children had been admitted to hospitals, 228 of them in Gazankulu. Eighteen polio patients were being treated in Lebowa and no deaths had been reported in that area, he said. No further cases had been reported in the Republic, he said. A spokesman for the Department of Health said 20 patients were being treated for typhoid at Weskoppies Hospital near Pretoria. Authorities predicted the disease would not spread. [Text] [Johannesburg THE CITIZEN in Engsligh 24 Jul 82 p 3]

cso: 5400/5693

VACCINATION OF ANIMALS—In the first of this year, the veterinary service in Battambang Province vaccinated over 40,000 head of oxen and buffalo against foot—and—mouth disease, anthrax, black leg, hemorrhagic septicemia and rinder—pest, over 3,999 hogs against swine pest, and tens of thousands of hogs against diamond skin disease. [Phnom Penh Domestic Service in Cambodian 0400 GMT 17 Jul 82 BK]

LOCUST DAMAGE--Malacha, 18 Jun--A pestilence similar to locusts is ruining the grazing lands the zone of Toraza, La Chica and El Playon, towns situated along the road that goes from Malacha to Pina. Farmers in this region went to the local news media to say that a few days ago a kind of locust has shown up that is ruining the grazing lands everywhere in that sector, which had been rehabilitated by rains that fell in the closing days of winter. They said that the damage that they are experiencing is very serious and will gravely affect that zone which is known for its livestock raising. said that they had communicated the matter to the Ministry of Agriculture and Livestock (MAG), demanding their consideration and that they think that in the upcoming days technicians from MAG will visit the places named in order to take measures to stop the aforesaid phenomenon. Livestock raising in that area is considered important to supplying the markets in Santa Rosa, Pasaje and Machala. Continuation of this plague in the grazing lands would bring on an economic crisis among the farmers in the area. [Quito EL COMERCIO in Spanish 19 Jun 82 p A 12] 9908

CSO: 5000/2141

FUNGUS DISEASE SPREADING AMONG PINE. JUNIPER FORESTS

Helsinki HELSINGIN SANOMAT in Finnish 10 Jul 82 p 6

[Article by Leo Lipsonen]

[Text] Although one would think that such genuinely Finnish species as pine and juniper would adapt well to changing conditions, the bad weather we have had the past few years has already seriously affected their health. A persistent fungus disease is plaguing junipers and pines are suffering from a pine shoot cancer in an ever-widening area. The wet and otherwise bad weather has noticeably accelerated the spread of both diseases.

Stigmina juniperina, the disease that attacks junipers, is already found throughout the whole country with the exception of Lapland. This fungus disease gradually turns the juniper needles brown and may kill the tree entirely. The pine shoot cancer has wrought havoc locally before too, but this year it seems to be spreading more widely than before. Most often it only kills the tips of the pine shoots, but sometimes hectares and hectares of forest are involved, Dr of Agriculture and Forestry Timo Kurkela of the Forest Research Institute told us.

Stigmina juniperina has not been studied here in Finland because juniper is of no economic importance. The Forest Research Institute has, however, received a flood of questions as to what could make junipers that were once healthy turn brown and lose their needles. Kurkela said that they have had calls particularly from the Lounais-Hame and Pirkka-Hame area where columnar junipers predominate.

According to Kurkela, the fungus disease is found in Ita-Suomi junipers too, but perhaps peple do not take much note of it there. In Ita-Suomi junipers generally grow as shrubs, not as stately columnar trees.

Kurkela found Stigmina juniperina at Virolahti for the first time in 1969. In that same year he came across the disease in Helsinki too.

There are also two other kinds of Stigmina disease. The famous researcher, Petter Adolf Karsten, came across a different kind of fungus disease as early as the 1800's. Before Kurkela no one had paid any attention to Stigmina juniperina even though, according to him, it does belong to the natural mycology of junipers.

Does Not Always Kill Junipers

All anyone has to do to recognize this fungus disease is to go to the trouble of observing the needles that have turned brown. Even with the naked eye dozens of little dots can be seen on them.

Stigmina juniperina does not always entirely kill off the juniper. Junipers growing in shady spots are in the greatest danger. In open spots the spores are generally not able to infect junipers as much.

Even though the lower part of the juniper may be completely brown, there may still be a green tuft at the top. As long as there are green needles on a juniper, it can survive. A juniper that has turned completely brown may be cut down since it has already died.

Kurkela believes that the fungus disease is not spreading as quickly as it has before because juniper needle growth has diminished. Stigmina juniperina can be combatted chemically, but the pesticides have not been approved for use in Finland.

"Of course, a manufacturer could apply to the Plant Protection Institute for approval of a pesticide to be used for this purpose. Before that, however, the tests required by law would have to be made."

In the United States the disease has been combatted in connection with the cultivation of wine grapes by using a Bordeaux pesticide.

They had trouble with pine shoot cancer as early as the 1940's on Forest Research Institute plantations on which foreign varieties of pine were grown. The disease spread when sapling stands planted in the 1920's and 1930's were not thinned out during the war.

In the 1960's pine shoot cancer cropped up in Pohjois-Suomi in both nurseries and cultivated sapling stands. After that, farther south there was very severe local damage. Kurkela said, however, that pine shoot cancer has never before spread as far as it has this year.

Pine shoot cancer has been found mostly in the watershed area, from the Kurku-Parkano districts to Multia. According to Kurkela, the northernmost damaged areas are around Viitasaari. The disease has, however, to some extent been found even near Rovaniemi.

In mild cases, pine shoot cancer is satisfied with killing the tips of the pine shoots. Most often the damage goes no farther. Sometimes the disease kills a tree here or there. The ravaging of all the hectares of a pine forest is, however, rare.

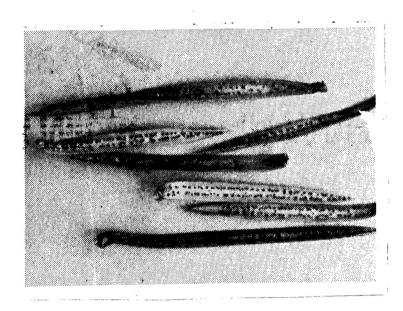
"Moisture affects pines in two ways. First, the pine is weakened. Second, the spores spread more rapidly," Kurkela explained.

The disease can be combatted in nurseries with poison. There is no way of combatting it in the forest.

Improvement May Produce Risks

"Aside from trees of foreign origin, all pines that have been transferred from the south to the north are also particularly susceptible to pine shoot cancer. We may have to reconsider the arguments for the forest improvement effort, which take into account only tree production and growth. Improvement may in future produce risks." Kurkela suspected.

According to Kurkela, it is not at all certain that a pine of local origin would be resistant to the disease. Northern pines, however, certainly resist pine shoot cancer better than purely grown improved pines brought in from the south.



Microscope magnification of juniper needles attacked by the fungus disease. The small dots can even be seen with the naked eye.

11,466 CSO: 5400/2184

SPOTTED ALFALFA APHID COUNTRY'S LATEST INSECT PEST Auckland THE NEW ZEALAND HERALD in English 9 Jul 82 p 13 [Text]

New Zealand's latest insect pest, the spotted alfalfa aphid, has been found to breed on white clover, as well as lucerne.

Government scientists will be watching intently when it resumes its activity later next spring, trying to discover what damage it may do to clover,

farming system.

The aphid was discovered in New Zealand for the first time only on April 21.

the plant at the heart of New Zealand's grassland

Before the winter closed in it had been found on five sites between Helensville (and Huntly and sprayed with what scientists at Ruakura last week estimated was a 99.99 per cent kill rate.

They are still certain, however, that the pest will reappear.

Most adults are female and give birth to young without mating, so a single survivor can start a new population.

A theory has been put

forward that the insect may have blown across the Tasman in storms at Easter.

But Dr R. P. Pottinger, leader of the insect control and organic chemistry group at the Ruakura Agricultural Research Centre, said last week that this was not certain.

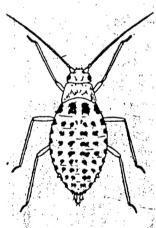
The spotted alfalfa aphid reached Australia in 1976, and caused considerable damage to lucerne crops there.

"In New Zealand we have a type which attacks both clover and lucerne," he said.

"It is not clear why its behaviour is different from Australia."

Dr. Pottinger said scientists were not yet sure what the new pest's importance would be in New Zealand. It had not yet been present in sufficient numbers to gauge what damage it could cause.

New Zealand already has about one-fifth of its lucerne stands planted in aphid-resistant strains.



The wingless, adult spotted alfalfa aphid.

TANZANIAN GRAIN IMPORTS BANNED BECAUSE OF GRAIN BORER THREAT

Lusaka TIMES OF ZAMBIA in English 17 Jul 82 p 2

[Text] AN entomologist at Mount Makulu research centre in Chilanga has warned villagers in Northern Province against making private arrangements to buy grain from Tanzania.

Mr. David Sachisuwa said in a radio programme yesterday that if the villagers got grain from Tanzania illegally they would unknowingly bring the dreaded grain borer into Zambia.

Research had shown that the pest had not entered the country. The grain borer originated from the United States and this was the first time it has been reported in Africa.

The research station has mounted an educational campaign among villagers on the borders with Tanzania to make them aware of the dangers of the destructive pest.

Transporting

The companies transporting grain from Dar es Salaam have been advised to take precautionary measures to kill the pest before reaching Zambia.

If by mistake the pest gets into Zambia it would cause a lot of damage to grain.

"But we are taking all measures to see to it that it does not come to Zambia."

Following reports about the pest the Government has banned the importation of the grain from Tanzania. In Livingstone, framers feared that the pest had crossed into the country when they saw that their maize had been destroyed early this year.

District agricultural officer Mr Humphrey Millapo took a Times reporter to visit the farms to see the damage the "new type" of pest had done to the crops.

CSO: 5400/5694 END